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## **CLAIMS:**

A method of forming an oxide region over a semiconductor 1. substrate, comprising:

forming a hitrogen-containing layer across at least some of the substrate; and

after forming the nitrogen-containing layer, growing an oxide region from the at least some of the substrate, the nitrogen of the nitrogencontaining layer being dispersed within the oxide region.

- The method of claim 1 wherein the substrate comprises 2. silicon and the oxide region comprises silicon dioxide.
- The method of claim 1 wherein the substrate comprises 3. monocrystalline silicon and the oxide region is grown from the monocrystalline silicon and comprises silicon dioxide.
- The method of claim 1 wherein the nitrogen-comprising layer 4. is formed from plasma activated nitrogen species.

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5. The method of claim 1 wherein the nitrogen-comprising layer is formed by remote plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 12 inches from the substrate.

- 6. The method of claim 1 wherein the nitrogen-comprising layer is formed by remote plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 12 inches from the substrate; and wherein the substrate not being biased relative to the plasma during formation of the nitrogen-comprising layer.
- 7. The method of claim 6 wherein the substrate is maintained at a temperature of from about 550°C to about 1000°C during formation of the nitrogen-comprising layer.
- 8. The method of claim 6 wherein the substrate is exposed to the nitrogen species for a time of from greater than 0 minutes to about about 5 minutes.
- 9. The method of claim 1 wherein the nitrogen-comprising layer is formed by plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 4 inches from the substrate.

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		10.	The	met	hod c	of claim	ı 9	whe	rein	the	substi	ate is	maintain	ed
at	a	tempe	rature	ho	from	about	0°0	C to	abo	ut -	400°C	during	g formati	on
of	th	e nitro	ogen-c	omp	\ rising	layer.								

- 11. The method of claim 9 wherein the substrate is exposed to the nitrogen species for a time of from greater than 0 seconds to about about 30 seconds.
- 12. A method of \forming a pair of oxide regions over a semiconductor substrate, comprising:

forming a first oxide region which covers only a portion of the substrate;

forming a nitrogen-comprising layer across at least some of the first oxide region and across at least some of the substrate that is not covered by the first oxide region; and

after forming the nitrogen-comprising layer, growing a second oxide region from the at least some of the substrate.

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13. The method of claim 12 wherein the first oxide region is formed by:

forming an oxide layer over the covered region and at least some of the uncovered region of the substrate; and

removing the oxide layer from over the uncovered region of the substrate.

- 14. The method of claim 13 wherein the oxide layer is formed by exposing the substrate to oxidizing conditions.
- 15. The method of claim 12 wherein the nitrogen-comprising layer is formed by remote plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 12 inches from the substrate.
- 16. The method of claim 12 wherein the nitrogen-comprising layer is formed by plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 4 inches from the substrate.

17. A method of forming a pair of transistors associated with a semiconductor substrate, comprising:

defining a first region and a second region of the substrate;

forming a first oxide region which covers at least some of the first region of the substrate and which does not cover at least some of the second region of the substrate;

forming a nitrogen-comprising layer across at least some of the first oxide region and across at least some of the uncovered second region of the substrate;

after forming the nitrogen-comprising layer, growing a second oxide region from the uncovered second region of the substrate;

forming a first transistor gate over the first oxide region and a second transistor gate over the second oxide region;

forming first source/drain regions proximate the first transistor gate;

forming second source/drain regions proximate the second transistor gate.

18. The method of claim 17 wherein the second oxide region is grown to be thicker than the first oxide region.

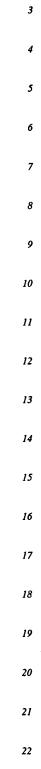
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19. The method of claim 17 wherein the first oxide region is formed by:

forming an oxide layer over the first and second regions of the substrate; and

removing the oxide layer from over the at least some of the second region of the substrate.

- 20. The method of claim 17 wherein the substrate comprises silicon and the oxide regions comprise silicon dioxide.
- 21. The method of claim 17 wherein the substrate comprises monocrystalline silicon and the oxide regions comprise silicon dioxide; and wherein the first oxide region is grown from the monocrystalline silicon substrate.
- 22. The method of claim 17 wherein the nitrogen-comprising layer is formed by remote plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 12 inches from the substrate.



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23. The method of claim 17 wherein the nitrogen-comprising layer is formed by plasma nitridation utilizing pitrogen species generated in a plasma that is at least about 4 inches from the substrate.



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24. A method of forming a pair of transistors associated with a semiconductor substrate, comprising:

defining a first region and a second region of the substrate, the first region being a p-type doped region and the second region being an n-type doped region;

forming a first oxide region which covers at least some of the first region of the substrate and which does not cover any of the second region of the substrate;

forming a nitrogen-comprising layer across at least some of the first oxide region and across at least some of the second region of the substrate;

after forming the nitrogen-comprising layer, growing a second oxide region from the second region of the substrate;

forming a first transistor gate over the first oxide region and a second transistor gate over the second oxide region;

forming first source/drain regions proximate the first transistor gate to form a PMOS transistor comprising the first transistor gate; and

forming second source/drain regions proximate the second transistor gate to form an NMOS transistor comprising the second transistor gate.

25. The method of claim 24 wherein the PMOS transistor gate comprises p-type doped silicon, and wherein the nitrogen containing layer formed over the oxide region prevents p-type dopant migration from the doped silicon to the first substrate region.

- 26. The method of claim 24 wherein the second oxide region is grown to be thicker than the first oxide region.
- 27. The method of claim 24 wherein the nitrogen-comprising layer is formed by remote plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 12 inches from the substrate.
- 28. The method of claim 24 wherein the nitrogen-comprising layer is formed by plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 4 inches from the substrate.